

Applicant : Paul N. Stoving et al.
Serial No. : 10/802,409
Filed : March 16, 2004
Page : 5 of 10

Attorney's Docket No.: 08215-540001 / P03-026853

Amendments to the Drawings:

The attached replacement sheet of drawings includes changes to Figure 2 and replaces Figure 2. The attached annotated sheet shows annotations indicating the changes made to Figure 2 and explaining the changes. In the annotated sheet, the changes are indicated in red ink and the annotations are shown in blue ink.

In Figure 2, the arrows pointing out the portions of the figure that refer to reference characters 102 and 118 have been extended to more precisely indicate the items to which they refer.

Attachments following last page of this Amendment:

Replacement Sheet (1 page)
Annotated Sheet Showing Changes (1 page)

REMARKS

Applicant asks that all claims be allowed in view of the following remarks. Claims 1-5, 8, 18, 21, 22, and 24-28 are currently pending, with claims 1 and 18 being independent.

Applicant thanks the Examiner for allowing claims 1-5, 8, 27, and 28.

Objection to Drawings

In response to the Examiner's objection to Figure 2, applicant has amended Figure 2 such that the arrows for reference characters 102 and 118 have been extended to more precisely indicate the elements to which they refer. The Examiner objected to reference character "12" in Figure 2 as being one of three character references that identify the "sleeve" in Figure 2. See the Office action of Dec. 1, 2005 at page 2, lines 6-8. However, Figure 2 does not include a reference character "12." As such, applicant assumes that the Examiner intended to refer to reference character "112." Reference character 112 refers to the sleeve and no change for this reference character is needed.

Objections to Claims

Claims 18, 21, 22, and 24-26 have been objected to because of the term "hollow housing" in claim 18. See Office action of Dec. 1, 2005 at page 3, line 19. Applicant requests withdrawal of this objection because the applicant's disclosure describes a "hollow housing." For example, the current exchange housing 118 is a hollow housing. See the specification at page 5, and Figs. 1, 2, and 4. Informal objections to claims under MPEP 608.01(m) are appropriate for minor informalities such as inconsistent terminology and spelling mistakes. See MPEP 608.01(m). However, applicant has not used inconsistent terminology, and the claim is not indefinite. Moreover, if an informality renders a claim indefinite, the claim should be rejected under 35 U.S.C. § 112, and the Examiner has the initial burden of showing evidence as to why a person skilled in the art would not recognize a description of the claims within the disclosure. See MPEP 2163.04. However, the Examiner has not met this burden. For at least these reasons, applicant requests withdrawal of this objection.

Rejection of claims 18, 21, 22, and 24-26 in view of Pflanz

Claims 18, 21, 22, and 24-26 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 3,849,617 (Pflanz). Applicant requests withdrawal of this rejection because Pflanz does not describe or suggest a tube provided through a seal and including cured liquefied encapsulation material to block the passage of air between an exterior of the seal and a cavity defined by the seal, as recited in claim 18.

Claim 18 reads:

A vacuum switching device comprising:

- a vacuum interrupter;
- a hollow housing adjacent to the vacuum interrupter;
- a seal provided around the vacuum interrupter and the hollow housing, the seal defining an air-filled cavity within the hollow housing; and
- a tube provided through the seal and including cured liquefied encapsulation material to block the passage of air between an exterior of the seal and the cavity.

In rejecting claim 18, the Examiner quotes language from claim 1 as it was originally filed. See Office action of Dec. 1, 2005 at page 3, lines 9-23. Applicant requests clarification regarding this rejection because, as shown above, the language of claim 18 is different from the language quoted by the Examiner.

Additionally, the Examiner indicates that claim 18 is being treated as if it were in product-by-process form. The Examiner asserts that "[t]he limitation 'sealed with cured encapsulation . . . ' is being treated as a product by process limitation." See Office action of Dec. 1, 2005 at page 3, line 25 to page 4, line 1. However, as seen above, the term "sealed with cured encapsulation" is no longer an element of claim 18. This language was removed in response to the same rejection of claim 18 that the Examiner made in the final Office Action of July 6, 2005. See the final Office Action of July 6, 2005 at page 5, lines 2-8. Thus, claim 18, as pending, is not in product-by-process form. As such, applicant requests further clarification regarding this rejection.

Moreover, Pflanz does not describe or suggest at least a tube provided through a seal and including cured liquefied encapsulation material to block the passage of air between an exterior of the seal and a cavity, as recited in claim 18. The Examiner points to Pflanz' tube 24 to show a tube provided through a seal. However, Pflanz does not disclose that the tube 24 includes cured liquefied encapsulation material to block the passage of air between an exterior of the seal and a cavity, as recited in claim 18. Rather, Pflanz merely discloses that the tube 24 is used to remove air from a space 23 within a vacuum interrupter 10 "to the extent desired" and then the tube 24 is subsequently sealed. See Pflanz at col. 2, lines 40-66. As evident from this description and from the design in Fig. 2 of Pflanz, the tube 24 is not filled with cured liquefied encapsulation material at any time to block air between the space 23 and an exterior of the interrupter 10, and the tube 24 is merely sealed to itself. For at least these reasons, claim 18 is allowable over Pflanz.

The Examiner further provides in the Response to Arguments at page 6 that "[a]ccording to the disclosure (page 6, line 6) element 124 is 'the rubber plug 124, may form at least part of seal', and as such, element 124 is taken as seal." As best as applicant can tell, the Examiner appears to be limiting the "seal" in claim 18 to the element 124 described by applicant in the specification. However, this construction of the term "seal" is not appropriate. First, the referenced phrase of the specification more completely reads, "the compliant material 122, along with, e.g., the rubber plug 124, may form at least part of a seal." See the specification at page 6, lines 5-7. Thus, the specification does not actually limit the term "seal" in the manner in which the Examiner is purporting to limit this term. Second, the Examiner must interpret the claims during prosecution as broadly as their terms reasonably allow and the Examiner must give the words of the claim their plain meaning unless the applicant has provided a clear definition in the specification. See MPEP §2111.01(I). The specification may be used to interpret claim terms only when it defines claim terms. See MPEP §2111.01 (I). For this additional reason, the Examiner has improperly interpreted the term "seal."

Claims 21, 22, and 24-26 depend, directly or indirectly, from independent claim 18, and are allowable for at least the reasons that claim 18 is allowable, and for containing allowable subject matter in their own right. For example, claim 21 recites a tube with a diameter large

enough to transfer air from the air-filled cavity to the space exterior the seal and small enough to prevent transmission of the liquefied encapsulation material from the space into the air-filled cavity. Pflanz never suggests that the tube 24 has a diameter small enough to prevent transmission of a liquefied encapsulation material. Rather, Pflanz explains that the tube 24 is actively sealed after the space 23 is "evacuated to the extent desired." See Pflanz at col. 2, lines 60-66. As another example, claim 24 recites that "the second end of the tube is open to an encapsulation material provided around the vacuum interrupter, the hollow housing, and the seal." However, Pflanz does not disclose a tube that is open to an encapsulation material provided around the interrupter 10.

As a further example, claim 25 recites that the encapsulation material includes pre-filled, hot-curing, two-component epoxy resin. Since Pflanz does not disclose any encapsulation material, Pflanz does not disclose this type of encapsulation material. In rejecting claim 25, the Examiner points to the wall elements 11 and 14 of Pflanz as showing a seal and notes that Pflanz discloses that the wall elements 11 and 14 may be made from any suitable material. See Office action of Dec. 1, 2005 at page 4, lines 5-6. The Examiner cites In re Leshin, 47 C.C.P.A. 909 (C.C.P.A. 1960), to assert that it would have been obvious to use pre-filled, hot-curing, two-component epoxy resin as an encapsulation material. However, the fact that the wall elements 11 and 14 may be made from other materials does not remedy the failure of Pflanz to disclose that the tube 24 includes cured liquefied encapsulation material. Moreover, In re Leshin is inapplicable to the analysis of claim 25. The applicant of In re Leshin conceded that the prior art showed a lipstick container similar to his own but argued that the prior art lacked the applicant's particular "molded plastic materials." See In re Leshin, 47 C.C.P.A. at 910-11. In contrast, Pflanz' tube 24 does not include any material other than the tube 24 itself that can be substituted with another material.

Rejection of claims 18, 21, and 24-26 over Kumbera in view of Pflanz

Claims 18, 21, and 24-26 have been rejected under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 4,168,414 (Kumbera) in view of Pflanz. Applicant requests withdrawal of

this rejection because any possible combination of Kumbera and Pflanz would still fail to describe or suggest a tube provided through a seal and including cured liquefied encapsulation material to block the passage of air between an exterior of the seal and a cavity.

The Examiner concedes that Kumbera does not disclose such a tube. The Examiner relies on Pflanz to show such a tube. However, while Pflanz shows the tube 24, which extends through the member 14, the tube 24 in Pflanz does not include cured liquefied encapsulation material. Rather, as discussed above, the tube 24 is merely sealed to itself once the space 23 is "evacuated to the extent desired." See Pflanz col. 2, lines 64-65. There is no indication in Pflanz that the tube 24 includes any type of encapsulation material.

For at least these reasons, claim 18 is allowable over Kumbera in view of Pflanz. Claims 21 and 24-26 depend from claim 18 and are allowable for at least the reasons that claim 18 is allowable, and for containing allowable subject matter in their own right. For example, Kumbera does not remedy the failure of Pflanz to describe or suggest the features of claims 21, 24, and 25 that were discussed above.

Applicant submits that all claims are in condition for allowance.

It is believed that no fee is due in connection with this filing. Nevertheless, please apply any charges or credits to deposit account 06-1050.

Respectfully submitted,

Date: March 1, 2006

/Diana DiBerardino/
Diana DiBerardino
Reg. No. 45,653

Fish & Richardson P.C.
1425 K Street, N.W.
11th Floor
Washington, DC 20005-3500
Telephone: (202) 783-5070
Facsimile: (202) 783-2331

200

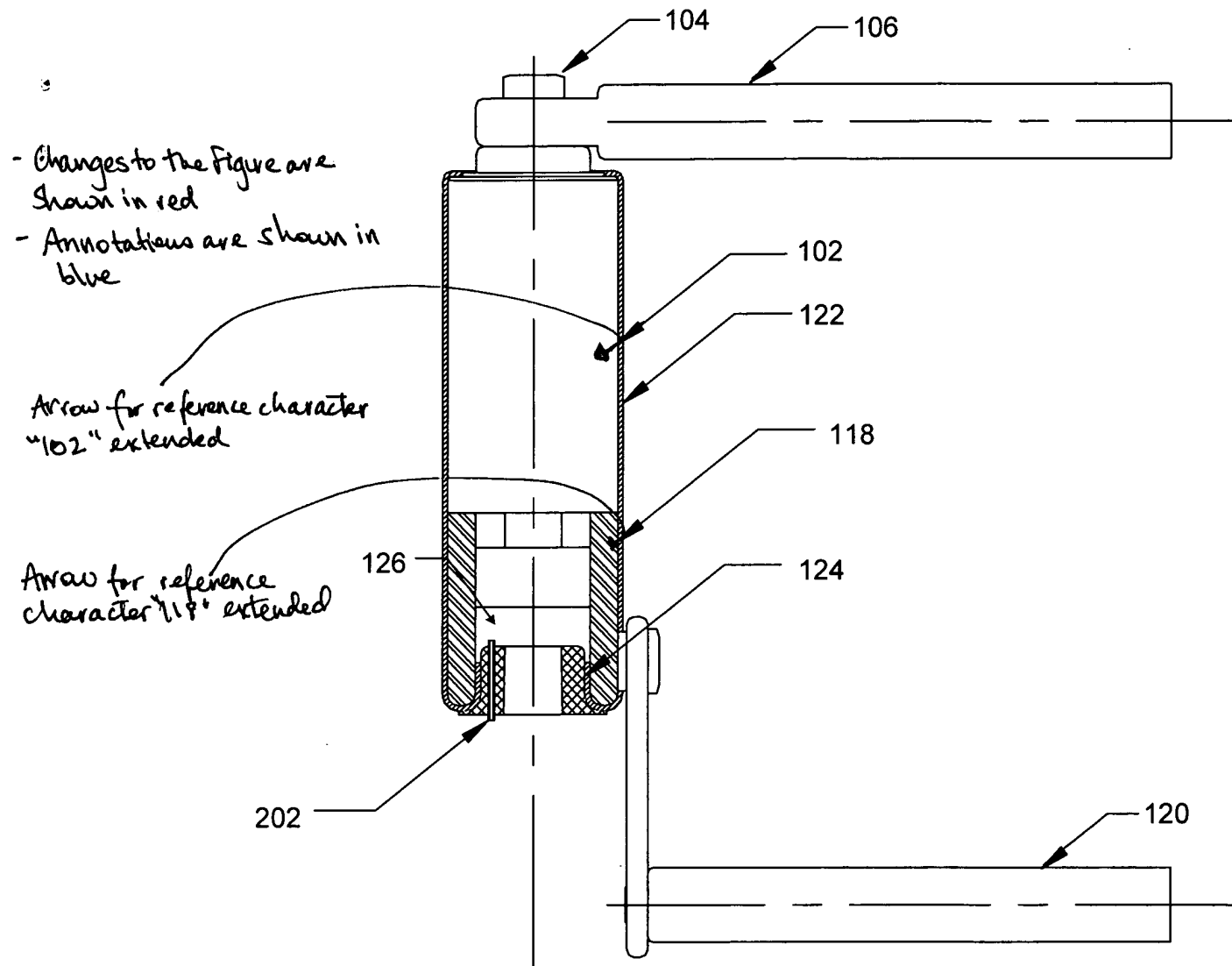


FIG. 2